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Patent Application
Attorney Docket No. PC10723A

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By _____
(Signature of person mailing)
Stuart P. Suskind
(Typed or printed name of person)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:
BRIAN T. O'NEILL, ET AL.

APPLICATION NO.: 09/811,218

FILING DATE: March 16, 2001

TITLE: BENZOAMIDE PIPERIDINE CONTAINING COMPOUNDS AND RELATED COMPOUNDS

Examiner: Balasubramanian, Venkataraman

Group Art Unit: 1624

Commissioner for Patents
Alexandria, Virginia 22313-1450

Sir:

PETITION FOR REVIVAL OF UNINTENTIONALLY ABANDONED APPLICATION
Under 37 C.F.R. §1.137(b)

The entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 C.F.R. 1.137(b) was unintentional. Therefore, applicants hereby petition for revival of the above-identified application.

Authorization is hereby provided to charge the amount of $1,280.00 as stated under 37 C.F.R. § 1.17(m), as well as any additional fees that may be required in connection with filing the subject Petition, or to credit any overpayment to Deposit Account No. 16-1445.

REQUEST FOR CONTINUED EXAMINATION UNDER 37 C.F.R. 1.114

In further response to the Advisory Action dated March 25, 2004, applicants hereby file a Request for Continued Examination (RCE) in compliance with 37 C.F.R. 1.114.

Authorization is hereby provided to charge appropriate fees in connection with this RCE to Deposit Account No. 16-1445.

The following amendments and remarks are respectfully submitted.

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In the Specification

BENZOAMIDE PIPERIDINE CONTAINING COMPOUNDS AND RELATED COMPOUNDS

The present invention relates to certain benzoamide piperidine containing compounds and related compounds that exhibit activity as NK-1 receptor antagonists, (e.g., substance P receptor antagonists), to pharmaceutical compositions containing them, and to their use in the treatment and prevention of central nervous system disorders, inflammatory disorders, cardiovascular disorders, ophthalmic disorders, gastrointestinal disorders, disorders caused by *helicobacter pylori*, disorders of the immune system, urinary incontinence, pain, migraine, emesis, angiogenesis and other disorders.

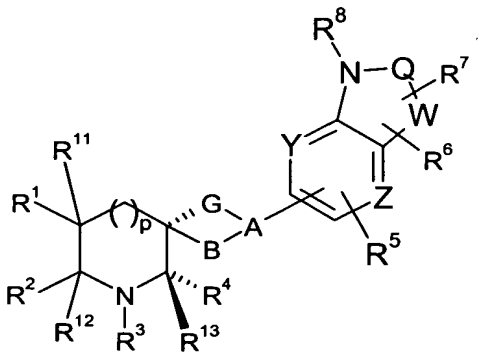
Substance P is a naturally occurring undecapeptide belonging to the tachykinin family of peptides, the latter being so-named because of their prompt stimulatory action on smooth muscle tissue. More specially, substance P is a pharmaceutically active neuropeptide that is produced in mammals (having originally been isolated from gut) and possesses a characteristic amino acid sequence that is illustrated by D. F. Veber et al. in US Pat. 4,680,283. The wide involvement of substance P and other tachykinins in the pathophysiology of numerous diseases has been amply demonstrated in the art.

World Patent Application WO 97/03066, published January 30, 1997, and ~~U.S. Patent Application 08/98004, filed May 9, 1996~~ U.S. Patent 6,180,647, refer to substituted benzolactam and cyclicthioamide compounds that exhibit activity as substance P receptor antagonists. Other substance P receptor antagonists containing a fused bicyclic moiety are referred to in the following: U.S. Patent Application 09/011,271, filed June 10, 1996; U.S. Provisional Patent Application 60/132,858, filed May 6, 1999; U.S. Patent Application 09/402,630, filed October 26, 1998; and World Patent Application WO 99/13663, published June 23, 1994.

The foregoing patent applications are incorporated herein by reference in their entirety.

SUMMARY OF THE INVENTION

The present invention relates to compounds of the formula



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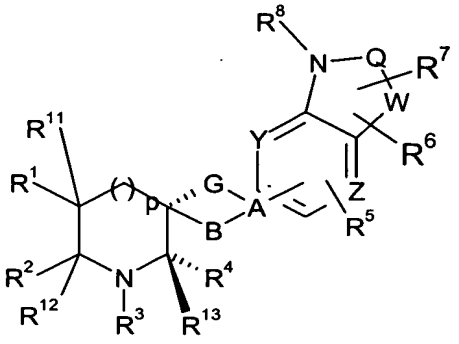
wherein Q is C=NH, C=CH_2, C=S, C=O, SO or SO_2;

In the Claims

1. **(Currently Amended)** A compound of the formula



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wherein Q is C=NH, C=CH_2, C=S, C=O, SO or SO_2;

A is CH, CH_2, C(C_1-C_6)alkyl, CH(C_1-C_6)alkyl, C(CF_3) or CH(CF_3), with the proviso that when B is present, A must be either CH, C(C_1-C_6)alkyl or C(CF_3);

B is absent or is methylene or ethylene;

~~each of Y and Z is N or CH, with the proviso that Y and Z can not both be N~~; Y is N and Z is CH, or Y is CH and Z is N;

G is $NH(CH_2)_q$, $S(CH_2)_q$ or $O(CH_2)_q$, wherein q is zero or one;

with the proviso that when q is zero, G is ~~NH_2, SH or OH~~; –NH-, -S- or –O-;

W is a one carbon linking group (i.e., methylene) or a saturated or unsaturated two or three carbon linking group, wherein each of the foregoing W groups can optionally be substituted with one substituent R^7 or two substituents R^7 and R^6, or W is a one carbon linking group that forms, together with a 2, 3, 4 or 5 carbon chain, a 3, 4, 5 or 6 membered spiro ring, respectively;

or W is a saturated two carbon chain linking group that forms, together with a separate 1, 2 or 3 carbon chain, a fused 3, 4 or 5 membered ring, respectively;

or W is a saturated two carbon chain linking group, wherein one of the two carbons in the chain forms, together with a separate 2, 3, 4 or 5 carbon chain, a 3, 4, 5 or 6 membered spiro ring, respectively;

p is zero, one or two;

R^3 is selected from hydrogen, COR^9, CO_2R^9, optionally substituted phenyl, optionally substituted heterocyclic rings, and optionally substituted (C_1-C_8)alkyl wherein one of the CH_2 groups of said (C_1–C_8) alkyl may optionally be replaced with a sulfur, oxygen or carbonyl

group and wherein said (C_1-C_8)alkyl can optionally be ~~substituted with from one to three substituents, preferably with zero substituents or one substituent,~~ unsubstituted or substituted with one to three substiutuents independently selected from hydroxy, oxo, phenyl-(C_1-C_3)alkoxy, phenyl, cyano, halo, optionally substituted heterocyclic rings, NR^9COR^{10}, $NR^9CO_2R^{10}$, $CONR^9R^{10}$, COR^9, CO_2R^9, NR^9R^{10}, and (C_1-C_6)alkoxy optionally unsubstituted or substituted with from one to seven fluorine atoms; ~~preferably with from zero to three fluorine atoms~~;

and wherein the heterocyclic rings of R^3 and the heterocyclic ring substituents on the alkyl groups of R^3 are selected, independently, from 3 to 7 membered saturated or unsaturated monocyclic rings containing from 1 to 4 ring heteroatoms, and 8 to 12 membered saturated or unsaturated bicyclic rings containing from 1 to 4 ring heteroatoms, wherein said heteroatoms are selected, independently, from oxygen, nitrogen and sulfur, with the proviso +that there can not be two adjacent ring oxygen atoms or two adjacent ring sulfur atoms in either the monocyclic or bicyclic heterocyclic rings, and with the proviso that heterocyclic rings formed from NR^9R^{10} or $CONR^9R^{10}$ must contain at least one nitrogen atom;

and wherein the heterocyclic rings of R^3 and the heterocyclic ring substituents on the alkyl groups of R^3 can optionally be ~~substituted or~~ unsubstituted or substituted with one or more substituents, ~~preferably with zero, one or two substituents~~, independently selected from oxo, hydroxy, thioxo, halo, cyano, phenyl, $(CH_2)_mNR^9R^{10}$, NR^9COR^{10}, $(CH_2)_mOR^9$, wherein m is zero, one or two, and (C_1-C_6)alkyl optionally ~~be~~ unsubstituted or substituted with one or more substituents, ~~preferably with from zero to two substituents~~, independently selected from halo, CF_3, methoxy and phenyl;

and wherein the phenyl groups of R^3 and the phenyl substituents in the alkyl groups of R^3 can optionally be unsubstituted or substituted with one or more substitutents, ~~preferably with from zero to two substituents~~, independently selected from the group consisting of halo, cyano, nitro, CF_3, $(CH_2)_mNR^9R^{10}$, wherein m is zero, one or two, NR^9COR^{10}, $NR^9CO_2R^{10}$, $CONR^9R^{10}$, $CO_2NR^9R^{10}$, COR^9, CO_2R^9, (C_1-C_6)alkyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, (C_1-C_6)alkoxy optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, and (C_2-C_6)alkenyl optionally unsubstituted or substituted with from one to seven fluorine atoms, ~~preferably with from zero to three fluorine atoms~~;

each of R^1, R^2, R^{11}, R^{12} and R^{13} are selected, independently, from hydrogen and (C_1-C_6)alkyl optionally unsubstituted or substituted with one or more substituents, ~~preferably with~~

~~zero, one or two substituents~~, that are selected independently from hydroxy, oxo, (C_1-C_6)alkoxy and cyano;

or R^1 and R^2, together with the carbon atoms to which they are attached, or R^2 and R^3, together with the carbon and nitrogen to which they are attached, respectively, form a 5 or 6 membered saturated heterocyclic ring containing one or two heteroatoms that are selected, independently, from nitrogen, oxygen and sulfur, with the proviso that said ring can not contain two adjacent oxygen atoms or two adjacent sulfur atoms; or R^1 and R^2, together with the carbons to which they are attached, form a 5 or 6 membered, saturated or unsaturated carbocyclic ring, and wherein said heterocyclic and carbocyclic rings formed by R^1 and R^2 or by R^2 and R^3 can be unsubstituted or substituted with one or more substituents, ~~preferably with zero substituents or one substituent~~, independently selected from halo, oxo, NR^9R^{10}, (C_1-C_6)alkyl optionally unsubstituted or substituted with from one to seven fluorine atoms, ~~preferably with from zero to three fluorine atoms~~, and (C1-C6)alkoxy optionally unsubstituted or substituted with from one to seven fluorine atoms; ~~preferably with from zero to three fluorine atoms~~;

or R^{12} and R^{13}, together with the carbon atoms to which they are attached, form a 5 or 6 membered saturated heterocyclic ring containing one or two heteroatoms that are selected, independently, from nitrogen, oxygen and sulfur, with the proviso that said ring can not contain two adjacent oxygen atoms or two adjacent sulfur atoms, or R^{12} and R^{13}, together with the carbons to which they are attached, form a 5 or 6 membered, saturated or unsaturated carbocyclic ring, and wherein said heterocyclic and carbocyclic rings formed by R^{12} and R^{13} can be unsubstituted or substituted with one or more substituents, ~~preferably with zero substituents or one substituent~~, independently selected from NR^9R^{10}, halo, phenyl-S-, phenyl-SO-, phenyl-SO_2-, oxo, (C_1-C_6)alkoxy optionally unsubstituted or substituted with from one to seven fluorine atoms, ~~preferably with from zero to three fluorine atoms~~, and (C_1-C_6)alkyl optionally substituted with from one to seven fluorine atoms; ~~preferably with from zero to three fluorine atoms:~~

with the proviso that no more than one of R^1 and R^2, R^2 and R^3, and R^{12} and R^{13} can form a ring;

R^4 is selected from phenyl, 2-, 3- or 4-pyridyl, 2- or 3-thienyl, and pyrimidyl, wherein R^4 can be optionally substituted with one or more substituents, preferably with zero or one substituent, selected, independently, from halo, (C_1-C_6)alkyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, (C_1-C_6)alkoxy optionally unsubstituted or substituted with from one to seven fluorine atoms~~, preferably with~~

~~from zero to three fluorine atoms~~, and (C_2-C_6) alkenyl optionally unsubstituted or substituted with from one to seven fluorine atoms, ~~preferably with from zero to three fluorine atoms~~;

R^5 and R^8 are selected, independently, from hydrogen, -SO(C_1–C_6)alkyl, -SO_2-(C_1-C_6)alkyl, -SO-aryl, -SO_2–aryl, CF_3, halo, phenyl, phenyl-(C_1-C_2)alkyl, hydroxy, aryloxy, heteroaryloxy, pyridyl, tetrazolyl, oxazolyl, thiazolyl, (C_1-C_6)alkoxy optionally substituted with from one to seven fluorine atoms, ~~preferably with from zero to three fluorine atoms~~, (C_1-C_6)alkyl optionally unsubstituted or substituted with from one to seven fluorine atoms, ~~preferably with from zero to three fluorine atoms~~, and (C_1-C_6)alkyl unsubstituted or substituted with one or more substituents, ~~preferably with from zero to two substituents~~ selected, independently, from hydroxy, oxo, (C_1-C_6)alkoxy, phenyl-(C_1-C_3)alkoxy, phenyl, cyano, chloro, bromo, iodo, NR^9R^{10}, NR^9COR^{10}, $NR^9CO_2R^{10}$, $CONR^9R^{10}$, COR^9 and CO_2R^9;

R^6 and R^7 are selected, independently, from -SO(C_1–C_6)alkyl, -SO_2-(C_1–C_6)alkyl, -SO-aryl, -SO_2–aryl, CF_3, halo, phenyl, phenyl-(C_1-C_2)alkyl, hydroxy, aryloxy, heteroaryloxy, pyridyl, tetrazolyl, oxazolyl, thiazolyl, (C_1-C_6)alkoxy optionally unsubstituted or substituted with from one to seven fluorine atoms, ~~preferably with from zero to three fluorine atoms~~, (C_1-C_6)alkyl optionally unsubstituted or substituted with from one to seven fluorine atoms, ~~preferably with from zero to three fluorine atoms~~, and (C_1-C_6)alkyl substituted with one or more substituents, preferably with from zero to two substituents selected, independently, from hydroxy, oxo, (C_1-C_6)alkoxy, phenyl-(C_1-C_3)alkoxy, phenyl, cyano, chloro, bromo, iodo, NR^9R^{10}, NR^9COR^{10}, $NR^9CO_2R^{10}$, $CONR^9R^{10}$, COR^9 and CO_2R^9;

each R^9 and each R^{10} is selected, independently, from hydrogen, (C_1-C_6)alkyl, hydroxy(C_1-C_6)alkyl, phenyl and CF_3;

or R^9 and R^{10}, when R^3 is NR^9R^{10} or $CONR^9R^{10}$, can form, together with the nitrogen to which they are attached, an optionally substituted heterocyclic ring that contains at least one nitrogen atom;

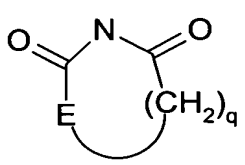
and wherein the phenyl groups in the definition of R^5, R^6, R^7 and R^8 and the phenyl moiety of phenyl (C_1-C_2)alkyl in the definition of R^5, R^6, R^7 and R^8 can optionally be unsubstituted or substituted with one or more substituents~~, preferably with from zero to two substituents~~, that are selected, independently, from halo, hydroxy, (C_1-C_6)alkoxy optionally unsubstituted or substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, and (C_1-C_6)alkyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms;

~~with the proviso that: (a) R^8 can not be halo, hydroxy, cyano, aryloxy, heteroaryloxy, substituted or unsubstituted (C_1-C_6)alkoxy or methyl substituted with from 1-3 fluorine~~

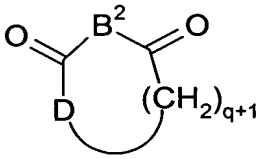
~~atoms; and (b) when Q is C=O or C=S, and Y and Z are both carbon, and W is a methylene, ethylene or propylene group that is optionally substituted with (C_1-C_6)alkyl or fluoro substituted (C_1-C_6)alkyl, and all of R^1, R^2, R^{11}, R^{12} and R^{13} are hydrogen, and R^5, R^6, R^7, and R^8 are selected from hydrogen, halo, (C_1-C_6) alkyl optionally substituted with from 1 to 7 fluorine atoms, (C_1-C_6) alkoxy optionally substituted with from 1 to 7 fluorine atoms, then R^3 can not be hydrogen;~~

or a pharmaceutically acceptable salt thereof.

2. **(Original)** A compound according to claim 1, wherein R^3 is an optionally substituted heterocyclic ring, or an alkyl group substituted with an optionally substituted heterocyclic ring, wherein said heterocyclic ring is selected from the following: pyrimidinyl, benzoxazolyl, 2,3-dihydro-3-oxobenzisosulfonazol-2-yl, morpholin-1-yl, thiomorpholin-1-yl, benzofuranyl, benzothienyl, indolyl, isoindolyl, isoquinolinyl, furyl, pyridyl, isothiazolyl, oxazolyl, triazolyl, tetrazolyl, quinolyl, thiazolyl, and thienyl, and groups of the formulas



and



wherein B^2 and D are selected from carbon, oxygen and nitrogen, and at least one of B^2 and D is other than carbon; E is carbon or nitrogen; q is an integer from 1 to 5; any one of the carbon atoms of said $(CH_2)_q$ and $(CH_2)_{q+1}$ may be optionally substituted with (C_1-C_6)alkyl or (C_1-C_6) spiroalkyl; and either any one pair of the carbon atoms of said $(CH_2)_q$ and $(CH_2)_{q+1}$ may be bridged by a one or two carbon atom linkage, or any one pair of adjacent carbon atoms of said $(CH_2)_q$ and $(CH_2)_{q+1}$ may form, together with from one to three carbon atoms that are not members of the carbonyl containing ring, a (C_3-C_5) fused carbocyclic ring.

3. **(Original)** A compound according to claim 1, wherein B is absent and A is CH_2.

4. **(Original)** A compound according to claim 1, wherein Q is a carbonyl group.

5. **(Cancelled)** A compound according to claim 1, wherein Y and Z are both CH.

6. **(Original)** A compound according to claim 1, wherein B is ethylene, A is CH and G is $NHCH_2$.

7. **(Original)** A compound according to claim 1, wherein B is ethylene, A is CH and G is SCH_2.

8. **(Original)** A compound according to claim 1, wherein R^3 is hydrogen.

9. **(Original)** A compound according to claim 1, wherein R^3 is CO_2R^9.

10. **(Original)** A compound according to claim 1, wherein B is absent, G is NH and A is CH_2.

11. **(Original)** A compound according to claim 1, wherein W is ethylene.

12. **(Original)** A compound according to claim 1, wherein R^4 is phenyl.

13. **(Original)** A compound according to claim 1, wherein R^4 is phenyl and R^8 is hydrogen.

14. **(Original)** A compound according to claim 1, wherein p is one.

15. **(Original)** A compound according to claim 1, wherein R^2 is $(C_1\text{-}C_6)$alkyl.

16. **(Original)** A compound according to claim 1, wherein R^2 is $(C_1\text{-}C_6)$alkyl wherein the stereochemical configuration at the chiral carbon to which R^2 is attached is "S".

17. **(Original)** A compound according to claim 1, wherein R^4 is 2-, 3- or 4-pyridyl.

18. **(Original)** A compound according to claim 1, wherein R^2 and R^{12} are selected, independently, from methyl and ethyl.

19. **(Cancelled)** A compound according to claim 1, wherein Y is CH.

20. **(Original)** A compound according to claim 3, wherein Q is a carbonyl group.

21. **(Original)** A compound according to claim 1, wherein Y is CH and Z is nitrogen.

22. **(Original)** A compound according to claim 2, wherein Q is a carbonyl group.

23. **(Cancelled)** A compound according to claim 2, wherein Y is CH and Z is CH.

24. **(Original)** A compound according to claim 1, wherein Q is C=O and W is methylene optionally substituted with one or two substituents independently selected from $(C_1\text{-}C_6)$alkyl and CF_3.

25. **(Original)** A compound according to claim 1, wherein Q is C=O and W is ethylene optionally substituted with one or two substituents independently selected from $(C_1\text{-}C_6)$alkyl and CF_3.

26. **(Original)** A compound according to claim 1, wherein Q is SO.

27. **(Original)** A compound according to claim 1, wherein Q is SO_2.

28. **(Original)** A compound according to claim 1, wherein Y is nitrogen and Z is CH.

29. **(Original)** A compound according to claim 1, wherein Q is C=S.

30. **(Original)** A compound according to claim 3 wherein R^8 is hydrogen.

31. **(Original)** A compound according to claim 1 wherein R^3 is a heterocyclic ring.

32. **(Original)** A compound according to claim 1 wherein R^3 is an alkyl group substituted with a heterocyclic ring.

33. **(Original)** A compound according to claim 1 wherein R^3 is an alkyl group substituted with a heterocyclic ring selected from imidazolyl, 5-oxo-4,5-dihydro-1H-[1,2,4]triazol-3-yl, benzoxazol-2-yl, and 5-oxo-pyrrolidin-2-yl.

34. **(Original)** A compound according to claim 1 wherein R^4 is optionally substituted pyridyl.

35. **(Original)** A compound according to claim 1 wherein R^2 and R^{12} are selected from $(C_1\text{-}C_3)$alkyl.

36. **(Original)** A compound according to claim 32 wherein Q is a carbonyl group.

37. **(Original)** A compound according to claim 2 wherein B is ethylene, A is CH and G is $NHCH_2$.

38. **(Original)** A compound according to claim 2 wherein B is ethylene, A is CH and G is SCH_2.

39. **(Original)** A compound according to claim 3 wherein R^3 is hydrogen.

40. **(Original)** A compound according to claim 3 wherein B is ethylene, A is CH and G is $NHCH_2$.

41. **(Original)** A compound according to claim 3 wherein R^3 is CO_2R^9.

42. **(Original)** A compound according to claim 3 wherein G is NH.

43. **(Original)** A compound according to claim 3 wherein W is ethylene.

44. **(Original)** A compound according to claim 3 wherein R^4 is phenyl.

45. **(Original)** A compound according to claim 3 wherein R^4 is phenyl and R^8 is hydrogen.

46. **(Original)** A compound according to claim 3 wherein p is one.

47. **(Original)** A compound according to claim 3 wherein R^2 is $(C_1\text{-}C_6)$alkyl.

48. **(Original)** A compound according to claim 3 wherein R^2 is $(C_1\text{-}C_6)$alkyl wherein the stereochemical configuration at the chiral carbon to which R^2 is attached is "S".

49. **(Original)** A compound according to claim 3 wherein R^4 is 2-, 3- or 4-pyridyl.

50. **(Original)** A compound according to claim 3 wherein R^2 and R^{12} are selected, independently, from hydrogen, methyl, ethyl and propyl.

51. **(Original)** A compound according to claim 3 wherein both R^2 and R^{12} are other than hydrogen.

52. **(Cancelled)** A compound according to claim 3 wherein Y is CH.

53. **(Cancelled)** A compound according to claim 3 wherein Y is CH and Z is CH.

54. **(Original)** A compound according to claim 2 wherein Y is CH and Z is nitrogen.

55. **(Original)** A compound according to claim 3 wherein Q is C=O and W is methylene optionally substituted with one or two substituents independently selected from $(C_1\text{-}C_6)$alkyl and CF_3.

56. **(Original)** A compound according to claim 3 wherein Q is C=O and W is ethylene optionally substituted with one or two substituents independently selected from $(C_1\text{-}C_6)$alkyl and CF_3.

57. **(Original)** A compound according to claim 3 wherein Q is SO.

58. **(Currently amended)** A compound that is selected from isomers and mixtures of isomers of the following compounds, wherein said isomers or mixtures of isomers have the sterochemistry depicted in structural formula I:

~~7-[(1-Dimethylaminoacetyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1-methyl-7-{[2-phenyl-1-(pyridin-2-yl-acetyl)-piperidin-3-ylamino]-methyl}-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1-methyl-7-{[2-phenyl-1-(pyridin-3-yl-acetyl)-piperidin-3-ylamino]-methyl}-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1-methyl-7-{[2-phenyl-1-(pyridin-4-yl-acetyl)-piperidin-3-ylamino]-methyl}-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Cyclopropoxy-1-methyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~(5-Chloro-2-methoxy-benzyl)-(2-phenyl-octahydro-cyclopenta[b]pyrrol-3-yl)-amine;~~

~~6-Methoxy-1-methyl-7-[(1-[1,2,4]oxadiazol-3-ylmethyl-2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~7-{[1-(Imidazol-1-yl-acetyl)-2-phenyl-piperidin-3-ylamino]-methyl}-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;~~

~~1-[3-(2-Methoxy-5-trifluoromethoxy-benzylamino)-2-phenyl-piperidin-1-yl]-2-pyridin-2-yl-ethanone;~~

~~1-[3-(2-Methoxy-5-trifluoromethoxy-benzylamino)-2-phenyl- piperidin-1-yl]-2-pyridin-3-yl-ethanone;~~

~~1-[3-(2-Methoxy-5-trifluoromethoxy-benzylamino)-2-phenyl-piperidin-1-yl]-2-pyridin-4-yl-ethanone;~~

~~2-Imidazol-1-yl-1-[3-(2-methoxy-5-trifluoromethoxy-benzylamino)-2-phenyl-piperidin-1-yl]-ethanone;~~

~~2-Dimethylamino-1-[3-(2-methoxy-5-trifluoromethoxy-benzylamino)-2-phenyl-piperidin-1-yl]-ethanone~~

~~3-(2-Benzyloxy-5-trifluoromethoxy-phenyl)-6-phenyl-1-oxa-7-aza-spiro[4.5]decane;~~

~~1-[3-(2-Methoxy-5-trifluoromethoxy-benzylamino)-2-phenyl-piperidin-1-yl]-2-pyrrolidin-1-yl-ethanone;~~

~~(2-Methoxy-5-trifluoromethoxy-benzyl)-(1-[1,2,4]oxadiazol-3-ylmethyl-2-phenyl-piperidin-3-yl)-amine;~~

~~7-{[2-(4-Fluoro-phenyl)-piperidin-3-ylamino]-methyl}-6-methoxy-1- methyl-3,4-dihydro-1H-quinolin-2-one;~~

~~[1-(2-Imidazol-1-yl-ethyl)-2-phenyl-piperidin-3-yl]-(2-methoxy-5-trifluoromethoxy-benzyl)-amine;~~

~~7-{[1-(2-Dimethylamino-ethyl)-2-phenyl-piperidin-3-ylamino]-methyl}-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;~~

~~(5-Chloro-2-ethoxy-pyridin-3-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(5-Chloro-2-methoxy-pyridin-3-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~Dibenzofuran-2-ylmethyl-(2-phenyl-piperidin-3-yl)-amine;~~

~~[3-(Indan-2-yloxy)-4-methoxy-benzyl]-(2-phenyl-piperidin-3-yl)-amine;~~

~~6-[(2-Phenyl-piperidin-3-ylamino)-methyl]-chroman-4-one;~~

~~(5-Methyl-benzo[b]thiophen-3-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(2,2-Dimethyl-chroman-6-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(1H-Benzoimidazol-5-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~1-{2-[(2-Phenyl-piperidin-3-ylamino)-methyl]-phenyl}-pyrrolidin-2-one;~~

~~(2-Phenyl-piperidin-3-yl)-[3-(pyridin-2-yloxy)-benzyl]-amine~~

~~[3-(4-Methoxy-phenoxy)-benzyl]-(2-phenyl-piperidin-3-yl)-amine;~~

~~(4-Phenoxy-benzyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(2-Phenyl-piperidin-3-yl)-thiophen-2-ylmethyl-amine;~~

~~Furan-2-ylmethyl-(2-phenyl-piperidin-3-yl)-amine;~~

~~(5-Methyl-furan-2-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(3-Methyl-thiophen-2-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(2-Phenyl-piperidin-3-yl)-thiophen-3-ylmethyl-amine;~~

~~(3-Methyl-benzo[b]thiophen-2-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~Benzofuran-2-ylmethyl-(2-phenyl-piperidin-3-yl)-amine;~~

~~(5-Ethyl-furan-2-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(5-Chloro-3-methyl-1-phenyl-1H-pyrazol-4-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~6-Methoxy-7-{[1-(2-methoxy-ethyl)-2-phenyl-piperidin-3-ylamino]-methyl}-1-methyl-3,4-dihydro-1H-quinolin-2-one;~~

~~(5-Methyl-3-phenyl-isoxazol-4-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(3-Phenoxy-benzyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~Furan-3-ylmethyl-(2-phenyl-piperidin-3-yl)-amine;~~

~~(3,5-Dimethyl-1-phenyl-1H-pyrazol-4-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(5,7-Dimethoxy-1H-indol-4-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(5-Methoxy-1H-indol-3-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(4-Oxy-quinoxalin-2-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~(2-Phenyl-piperidin-3-yl)-quinoxalin-2-ylmethyl-amine;~~

~~7-{[1-(2,3-Dihydroxy-propyl)-2-phenyl-piperidin-3-ylamino]-methyl}-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;~~

~~(2-Methoxy-5-trifluoromethoxy-benzyl)-[2-phenyl-1-(2-pyrrolidin-1-yl-ethyl)-piperidin-3-yl]-amine;~~

~~6-Ethoxy-1-methyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~[1-(2-Dimethylamino-ethyl)-2-phenyl-piperidin-3-yl]-(2-methoxy-5-trifluoromethoxy-benzyl)-amine;~~

~~3-(2-Cyclopropoxy-5-trifluoromethoxy-phenyl)-6-phenyl-1-oxa-7-aza-spiro[4.5]decane;~~

~~[1-(2-Methoxy-ethyl)-2-phenyl-piperidin-3-yl]-(2-methoxy-5-trifluoromethoxy-benzyl)-amine;~~

~~6-Hydroxy-1-methyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1-methyl-7-[(2-phenyl-octahydro-cyclopenta[b]pyrrol-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~7-{[2-(4-Fluoro-phenyl)-piperidin-3-ylamino]-methyl}-6-methoxy-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1-methyl-7-(6-phenyl-1-oxa-7-aza-spiro[4.5]dec-3-yl)-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1,3,3-trimethyl-5-[(2-phenyl-octahydro-cyclopenta[b]pyrrol-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~[3-Chloro-2-(4-fluoro-phenoxy)-pyridin-4-ylmethyl]-(2-phenyl-piperidin-3-yl)-amine;~~

~~6-Ethoxy-1,3,3-trimethyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~6-Ethoxy-1,3,3-trimethyl-5-[(2-phenyl-octahydro-cyclopenta[b]pyrrol-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~6-Isopropoxy-1,3,3-trimethyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~6-Isopropoxy-1,3,3-trimethyl-5-[(2-phenyl-octahydro-cyclopenta[b]pyrrol-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~6-Ethoxy-1,3,3-trimethyl-5-[(2-phenyl-octahydro-cyclopenta[b]pyrrol-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~6-Isopropoxy-1,3,3-trimethyl-5-[(2-phenyl-octahydro-cyclopenta[b]pyrrol-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~7-Isopropoxy-1-methyl-6-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1-methyl-7-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1,3,3-trimethyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1,3-dimethyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1,3-dimethyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~6-Methoxy-1-methyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~5-[(1-Isopropyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1,3,3-trimethyl-1,3-dihydro-indol-2-one;~~

~~6-Methoxy-1-methyl-7-[(2-phenyl-1-propyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1-methyl-7-{[1-(5-methyl-3H-imidazol-4-ylmethyl)-2-phenyl-piperidin-3-ylamino]-methyl}-3,4-dihydro-1H-quinolin-2-one;~~

~~7-{[1-(1H-Imidazol-4-ylmethyl)-2-phenyl-piperidin-3-ylamino]-methyl}-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;~~

~~7-[(1-Isopropyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1,3-dimethyl-7-[(1-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~5-[(1-Isopropyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1,3,3-trimethyl-1,3-dihydro-indol-2-one~~

~~6-Methoxy-1-methyl-7-{[1-(5-oxo-2,5-dihydro-1H-[1,2,4]triazol-3-ylmethyl)-2-phenyl-piperidin-3-ylamino]-methyl}-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~1-Ethyl-6-methoxy-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~1-Methanesulfonyl-6-methoxy-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1,4,4-trimethyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~8-Fluoro-6-methoxy-1,4,4-trimethyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1-methyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1,4-dimethyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-2-methyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-2H-isoquinolin-1-one;~~

~~6-Methoxy-3-methyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~6-Methoxy-1-methyl-,3,3-cyclopropyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~5-Methoxy-1-methyl-,3,3-cyclopropyl-6-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~6-Methoxy-1-methyl-(6-phenyl-1,7-diaza-spiro[4.5]dec-3-yl)-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1-methyl-7-phenyl-1,7-diaza-spiro[4.5]dec-3-yl)-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-3-methyl-5-[(1-phenyl-8-aza-bicyclo[3.2.1]oct-2-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~(6-Methoxy-1-methyl-2,2-dioxo-1,2,3,4-tetrahydro-2-thiobenzo[c--[1,2]thiazin-7-yl-methyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~6-Methoxy-3-methyl-5-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~6-Methoxy-1-methyl-7-(6-phenyl-1,7-diaza-spiro[4.5]dec-3-yl)-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1,3,3-trimethyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-pyrrolo[2,3-b]pyridin-2-one;~~

~~5-Methoxy-1,3,3-trimethyl-6-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-pyrrolo[3,2-b]pyridin-2-one;~~

~~6-Methoxy-1-methyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-[1,5]naphthyridin-2-one;~~

~~7-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;~~

~~5-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1,3,3-trimethyl-1,3,-dihydro-indol-2-one;~~

~~6-Methoxy-1,3,3-trimethyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-pyrrolo[2,3-b]pyridin-2-one;~~

~~5-Methoxy-1,3,3-trimethyl-6-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-pyrrolo[3,2-b]pyridin-2-one;~~

6-Methoxy-1-methyl-7-[(2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-[1,5]naphthyridin-2-one;

6-Methoxy-1-methyl-7-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-[1,5]naphthyridin-2-one;

7-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-[1,5]naphthyridin-2-one;

6-Methoxy-1-methyl-7-[(2-phenyl-6-propyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-[1,5]naphthyridin-2-one;

~~6-Methoxy-3-methyl-5-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~6-Methoxy-1-methyl-7-(6-phenyl-1,7-diaza-spiro[4.5]dec-3-yl)-3,4-dihydro-1H-quinolin-2-one;~~

and pharmaceutically acceptable salts thereof.

59. **(Currently amended)** A compound according to claim 1, selected from the group consisting of:

~~5-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~(1S,1aR)-5-[(2S,3S,6S)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~(1R,1aS)-5-[(2R,3R,6R)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~(1R,1aS)-5-[(2S,3S,6S)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~(1S,1aR)-5-[(2R,3R,6R)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~6-Methoxy-3-methyl-5-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~(1S,1aR)-6-Methoxy-3-methyl-5-[(2S,3S,6S)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~(1R,1aS)-6-Methoxy-3-methyl-5-[(2R,3R,6R)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~(1R,1aS)-6-Methoxy-3-methyl-5-[(2S,3S,6S)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~(1S,1aR)-6-Methoxy-3-methyl-5-[(2R,3R,6R)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~6-Methoxy-3-methyl-5-[(2-phenyl-6-propyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~6-Methoxy-1-methyl-7-[(2-phenyl-6-propyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~7-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;~~

~~6-Methoxy-1-methyl-7-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;~~

~~7-[((2S,3S,6S)-6-Isopropyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinoline-2-one;~~

~~7-[(6,6-Dimethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;~~

7-[((2S,3S,6S)-6-Isopropyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-[1,5]naphthyridin-2-one;

~~5-[(5-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~6-Methoxy-3-methyl-5-[(5-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~6-Methoxy-3-methyl-5-[(2-phenyl-5-propyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;~~

~~(6-Methoxy-1-methyl-2,2-dioxo-1,2,3,4-tetrahydro-2^6-benzo[c][1,2]thiazin-7-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;~~

~~6-Methoxy-1-methyl-,3,3-spirocyclopropyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~5-Methoxy-1-methyl-,3,3-spirocyclopropyl-6-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~5-Methoxy-1-methyl-,3,3-cyclobutyl-6-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~6-Methoxy-1-methyl-,3,3-cyclopentyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~6-Methoxy-1-methyl-,3,3-cyclohexyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;~~

~~(1S, 1aR) 6 Methoxy 3 methyl 5 [(1S,2S,5R) (1 phenyl 8 aza bicyclo[3.2.1]oct 2 ylamino) methyl] 1,1a,3,7b tetrahydro 3 aza cyclopropa[a]naphthalen 2 one;~~

~~(1R, 1aS) 6 Methoxy 3 methyl 5 [(1R,2R,5S) (1 phenyl 8 aza bicyclo[3.2.1]oct 2 ylamino) methyl] 1,1a,3,7b tetrahydro 3 aza cyclopropa[a]naphthalen 2 one;~~

~~(2 Methoxy 5 trifluoromethoxy benzyl) ((1S,2S,5R) 1 phenyl 8 azabicyclo[3.2.1]oct 2 yl) amine;~~

~~(2 Methoxy 5 trifluoromethoxy benzyl) ((1R,2R,5S) 1 phenyl 8 azabicyclo[3.2.1]oct 2 yl) amine;~~

~~5 Methoxy 1 methyl ,3,3 cyclopropyl 6 [(1S,2S,5R) (1 phenyl 8 azabicyclo[3.2.1]oct 2 yl) amine) methyl] 1,3 dihydro indol 2 one;~~

~~(6 Methoxy 1 methyl 2,2 dioxo 1,2,3,4 tetrahydro 2^6 benzo[c][1,2]thiazin 7 ylmethyl) (2 phenyl piperidin 3 yl) amine;~~

and pharmaceutically acceptable salts thereof.

60. **(Cancelled)** A compound according to claim 59, selected from the group consisting of:

5-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;

(1S,1aR)-5-[(2S,3S,6S)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;

(1R,1aS)-5-[(2R,3R,6R)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;

(1R,1aS)-5-[(2S,3S,6S)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;

(1S,1aR)-5-[(2R,3R,6R)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;

6-Methoxy-3-methyl-5-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;

(1S,1aR)-6-Methoxy-3-methyl-5-[(2S,3S,6S)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;

(1R,1aS)-6-Methoxy-3-methyl-5-[(2R,3R,6R)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;

(1R,1aS)-6-Methoxy-3-methyl-5-[(2S,3S,6S)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;

(1S,1aR)-6-Methoxy-3-methyl-5-[(2R,3R,6R)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;
6-Methoxy-3-methyl-5-[(2-phenyl-6-propyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;
6-Methoxy-1-methyl-7-[(2-phenyl-6-propyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one monohydrochloride;
7-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one monohydrochloride;
6-Methoxy-1-methyl-7-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one monohydrochloride;
5-[(5-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride;
6-Methoxy-3-methyl-5-[(5-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride; and
6-Methoxy-3-methyl-5-[(2-phenyl-5-propyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one monohydrochloride.

61. **(Cancelled)** A compound according to claim 59, selected from the group consisting of:
5-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;
(1S,1aR)-5-[(2S,3S,6S)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;
(1R,1aS)-5-[(2R,3R,6R)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;
(1R,1aS)-5-[(2S,3S,6S)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;
(1S,1aR)-5-[(2R,3R,6R)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;
6-Methoxy-3-methyl-5-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;
(1S,1aR)-6-Methoxy-3-methyl-5-[(2S,3S,6S)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;

(1R,1aS)-6-Methoxy-3-methyl-5-[(2R,3R,6R)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;
(1R,1aS)-6-Methoxy-3-methyl-5-[(2S,3S,6S)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;
(1S,1aR)-6-Methoxy-3-methyl-5-[(2R,3R,6R)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;
6-Methoxy-3-methyl-5-[(2-phenyl-6-propyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;
6-Methoxy-1-methyl-7-[(2-phenyl-6-propyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one mono-(D)-lactate;
7-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one mono-(D)-lactate;
6-Methoxy-1-methyl-7-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one mono-(D)-lactate;
5-[(5-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate;
6-Methoxy-3-methyl-5-[(5-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate; and
6-Methoxy-3-methyl-5-[(2-phenyl-5-propyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(D)-lactate.

62. **(Cancelled)** A compound according to claim 59, selected from the group consisting of:
5-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;
(1S,1aR)-5-[(2S,3S,6S)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;
(1R,1aS)-5-[(2R,3R,6R)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;
(1R,1aS)-5-[(2S,3S,6S)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;
(1S,1aR)-5-[(2R,3R,6R)-(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;

6-Methoxy-3-methyl-5-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;
(1S,1aR)-6-Methoxy-3-methyl-5-[(2S,3S,6S)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;
(1R,1aS)-6-Methoxy-3-methyl-5-[(2R,3R,6R)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;
(1R,1aS)-6-Methoxy-3-methyl-5-[(2S,3S,6S)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;
(1S,1aR)-6-Methoxy-3-methyl-5-[(2R,3R,6R)-(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;
6-Methoxy-3-methyl-5-[(2-phenyl-6-propyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;
6-Methoxy-1-methyl-7-[(2-phenyl-6-propyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one mono-(L)-lactate;
7-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one mono-(L)-lactate;
6-Methoxy-1-methyl-7-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one mono-(L)-lactate;
5-[(5-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate;
6-Methoxy-3-methyl-5-[(5-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate; and
6-Methoxy-3-methyl-5-[(2-phenyl-5-propyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one mono-(L)-lactate.

63. **(Cancelled)** A compound that is selected from isomers and mixtures of isomers of the following compounds, wherein said isomers or mixtures of isomers have the sterochemistry depicted in structural formula I:
6-Methoxy-1-methyl-7-[(2-phenyl-6-propyl-piperidin-3-ylamino)-methyl]-3,4-dihydro-1H-quinolin-2-one;
7-[(6-Isopropyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;
7-[(6-Tert-butyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;

7-[(6-Isobutyl-2-phenyl-piperidin-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;

7-[(1,2,3,4,5,6-Hexahydro-[2,3']bipyridinyl-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;

7-[(1,2,3,4,5,6-Hexahydro-[2,4']bipyridinyl-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;

(6-Methoxy-1-methyl-2,2-dioxo-1,2,3,4-tetrahydro-2-thiobenzo[c [1,2]thiazin-7-ylmethyl)-(2-phenyl-piperidin-3-yl)-amine;

6-Methoxy-3-methyl-5-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;

6-Methoxy-1-methyl-,3,3-cyclopropyl-5-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;

5-Methoxy-1-methyl-,3,3-cyclopropyl-6-[(1-phenyl-8-aza-bicyclo[3.2.1]oct-2-ylamino)-methyl]-1,3-dihydro-indol-2-one;

6-Methoxy-1-methyl-,3,3-cyclohexane-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;

6-Methoxy-1-methyl-,3,3-cyclopentyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;

6-Methoxy-1-methyl-,3,3-cyclopropyl-5-[(2-(-4-fluorophenyl)-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;

6-Methoxy-1-methyl-,3,3-cyclobutyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;

5-Methoxy-1-methyl-,3,3-cyclobutyl-6-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;

5-Methoxy-1-methyl-,3,3-cyclopropyl-6-[(6-methyl-2-phenyl-piperidin-3-ylamino)-methyl]-1,3-dihydro-indol-2-one;

6-Methoxy-1,3-dimethyl-5-[(2-phenyl-piperidin-3-ylamino)-methyl]-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;

7-[(1,2,3,4,5,6-Hexahydro-[2,2']bipyridinyl-3-ylamino)-methyl]-6-methoxy-1-methyl-3,4-dihydro-1H-quinolin-2-one;

6-[(6-Ethyl-2-phenyl-piperidin-3-ylamino)-methyl]-5-methoxy-1,1-dimethyl-indan-2-one;

and pharmaceutically acceptable salts thereof.

64. **(Withdrawn)** A method of treating a disorder or condition selected from the group consisting of mood disorders, such as depression, or more particularly, depressive disorders, for example, single episodic or recurrent major depressive disorders, dysthymic disorders, depressive neurosis and neurotic depression, melancholic depression, including anorexia, weight loss, insomnia, early morning waking and psychomotor retardation, atypical depression (or reactive depression), including increased appetite, hypersomnia, psychomotor agitation or irritability, seasonal affective disorder and pediatric depression; or bipolar disorders or manic depression, for example, bipolar I disorder, bipolar II disorder and cyclothymic disorder; conduct disorder and disruptive behavior disorder; anxiety disorders, such as panic disorder with or without agoraphobia, agoraphobia without history of panic disorder, specific phobias, for example, specific animal phobias, social anxiety, social phobias, obsessive-compulsive disorder, stress disorders, including post-traumatic stress disorder and acute stress disorder, and generalized anxiety disorders; borderline personality disorder; schizophrenia and other psychotic disorders, for example, schizophreniform disorders, schizoaffective disorders, delusional disorders, brief psychotic disorders, shared psychotic disorders, psychotic disorders with delusions or hallucinations, psychotic episodes of anxiety, anxiety associated with psychosis, psychotic mood disorders such as severe major depressive disorder; mood disorders associated with psychotic disorders such as acute mania and depression associated with bipolar disorder, mood disorders associated with schizophrenia; behavioral disturbances associated with mental retardation, autistic disorder, and conduct disorder in a mammal, including a human, comprising administering to said mammal an amount of a compound according to claim 1 that is effective in treating such condition or disorder.

65. **(Withdrawn)** A method of treating a disorder or condition selected from the group consisting of delerium, dementia, and amnestic and other cognitive or neurodegenerative disorders, such as Parkinson's disease (PD), Huntington's disease (HD), Alzheimer's disease, senile dementia, dementia of the Alzheimer's type, memory disorder, vascular dementia, and other dementias, for example, due to HIV disease, head trauma, Parkinson's disease, Huntington's disease, Pick's disease, Creutzfeldt-Jakob disease, or due to multiple aetiologies; movement disorders such as akinesias, dyskinesias, including familial paroxysmal dyskinesias, spasticities, Tourette's syndrome, Scott syndrome, PALSYS and akinetic-rigid syndrome; extra-pyramidal movement disorders such as medication-induced movement disorders, for example, neuroleptic-induced Parkinsonism, neuroleptic malignant syndrome,

neuroleptic-induced acute dystonia, neuroleptic-induced acute akathisia, neuroleptic-induced tardive dyskinesia and medication-induced postural tremour; substance-related disorders arising from the use of alcohol, amphetamines (or amphetamine-like substances) caffeine, cannabis, cocaine, hallucinogens, inhalants and aerosol propellants, nicotine, opioids, phenylglycidine derivatives, sedatives, hypnotics, and anxiolytics, which substance-related disorders include dependence and abuse, intoxication, withdrawal, intoxication delerium and withdrawal delerium; addictive behaviors such as gambling; epilepsy; Down's syndrome; acute pain, chronic pain and migraine; demyelinating diseases such as multiple sclerosis (MS) and amylolateral sclerosis (ALS), peripheral neuropathy, for example diabetic and chemotherapy-induced-neuropathy, and postherpetic neuralgia, trigeminal neuralgia, segmental or intercostal neuralgia and other neuralgias; and cerebral vascular disorders due to acute or chronic cerebrovascular damage such as cerebral infarction, subarachnoid haemorrhage or cerebral oedema in a mammal, including a human, comprising administering to said mammal an amount of a compound according to claim 1 that is effective in treating such condition or disorder.

66. **(Withdrawn)** A method of treating a disorder or condition selected from the group consisting of respiratory diseases, particularly those associated with excess mucus secretion, such as chronic obstructive airways disease, bronchopneumonia, chronic bronchitis, cystic fibrosis, adult respiratory distress syndrome, and bronchospasm; inflammatory diseases such as inflammatory bowel disease, psoriasis, Reiter's syndrome, Raynaud's syndrome, anthropathies, fibrositis, osteoarthritis, rheumatoid arthritis, psoriatic arthritis, asthma, pruritis and sunburn; human immunodeficiency virus (HIV) infections; allergies such as eczema and rhinitis, and other allergies; hypersensitivity disorders such as poison ivy; ophthalmic diseases such as conjunctivitis, vernal conjunctivitis, and the like; ophthalmic conditions associated with cell proliferation such as proliferative vitreoretinopathy; cutaneous diseases such as contact dermatitis, atopic dermatitis, urticaria, and other eczematoid dermatitis in a mammal, including a human, comprising administering to said mammal an amount of a compound according to claim 1 that is effective in treating such condition or disorder.

67. **(Withdrawn)** A method of treating a disorder or condition selected from the group consisting of neoplasms, including breast tumours, gastric carcinomas, gastric lymphomas, neuroganglioblastomas and small cell carcinomas such as small cell lung cancer in a

mammal, including a human, comprising administering to said mammal an amount of a compound according to claim 1 that is effective in treating such condition or disorder.

68. **(Withdrawn)** A method of treating a disorder or condition selected from the group consisting of gastrointestinal (GI) disorders, including inflammatory gastrointestinal disorders such as inflammation bowel disease disorders, caused by *helicobacter pylori* and diseases of the GI tract such as gastritis, gastroduodenal ulcers, disorders associated with the neuronal control of viscera, ulcerative colitis, Crohn's disease, irritable bowel syndrome and emesis in a mammal, including a human, comprising administering to said mammal an amount of a compound according to claim 1 that is effective in treating such condition or disorder.

69. **(Withdrawn)** A method of treating a disorder or condition selected from the group consisting of stress related somatic disorders; reflex sympathetic dystrophy such as shoulder/hand syndrome; adverse immunological reactions such as rejection of transplanted tissues and disorders related to immune enhancement or suppression such as systemic lupus erythematosus; plasma extravasation resulting from cytokine chemotherapy; disorders of bladder function such as cystitis, bladder detrusor hyper-reflexia, inflammation of the urinary tract and incontinence, including urinary urge incontinence, overactive bladder, stress incontinence and mixed incontinence; fibrosing and collagen diseases such as scleroderma and eosinophilic fascioliasis; blood flow disorders caused by vasodilation and vasospastic diseases such as angina and Reynaud's disease; angiogenesis; cardiovascular disorders; eating disorders, such as anorexia nervosa and bulimia nervosa; attention deficit hyperactivity disorder; chronic fatigue syndrome; sexual dysfunctions including premature ejaculation and male erectile dysfunction; premenstrual syndrome and premenstrual dysphoric disorder; fibromyalgia; and rheumatic diseases such as fibrositis in a mammal, including a human, comprising administering to said mammal an amount of a compound according to claim 1 that is effective in treating such condition or disorder.

70. **(Withdrawn)** A pharmaceutical composition for treating a disorder or condition selected from the group consisting of mood disorders, such as depression, or more particularly, depressive disorders, for example, single episodic or recurrent major depressive disorders, dysthymic disorders, depressive neurosis and neurotic depression, melancholic depression, including anorexia, weight loss, insomnia, early morning waking and

psychomotor retardation, atypical depression (or reactive depression), including increased appetite, hypersomnia, psychomotor agitation or irritability, seasonal affective disorder and pediatric depression; or bipolar disorders or manic depression, for example, bipolar I disorder, bipolar II disorder and cyclothymic disorder; conduct disorder and disruptive behavior disorder; anxiety disorders, such as panic disorder with or without agoraphobia, agoraphobia without history of panic disorder, specific phobias, for example, specific animal phobias, social anxiety, social phobias, obsessive-compulsive disorder, stress disorders, including post-traumatic stress disorder and acute stress disorder, and generalized anxiety disorders; borderline personality disorder; schizophrenia and other psychotic disorders, for example, schizophreniform disorders, schizoaffective disorders, delusional disorders, brief psychotic disorders, shared psychotic disorders, psychotic disorders with delusions or hallucinations, psychotic episodes of anxiety, anxiety associated with psychosis, psychotic mood disorders such as severe major depressive disorder; mood disorders associated with psychotic disorders such as acute mania and depression associated with bipolar disorder, mood disorders associated with schizophrenia; behavioral disturbances associated with mental retardation, autistic disorder, and conduct disorder in a mammal, including a human, comprising an amount of a compound according to claim 1 that is effective in treating such condition or disorder and a pharmaceutically acceptable carrier.

71. **(Withdrawn)** A pharmaceutical composition for treating a disorder or condition selected from the group consisting of delerium, dementia, and amnestic and other cognitive or neurodegenerative disorders, such as Parkinson's disease (PD), Huntington's disease (HD), Alzheimer's disease, senile dementia, dementia of the Alzheimer's type, memory disorder, vascular dementia, and other dementias, for example, due to HIV disease, head trauma, Parkinson's disease, Huntington's disease, Pick's disease, Creutzfeldt-Jakob disease, or due to multiple aetiologies; movement disorders such as akinesias, dyskinesias, including familial paroxysmal dyskinesias, spasticities, Tourette's syndrome, Scott syndrome, PALSYS and akinetic-rigid syndrome; extra-pyramidal movement disorders such as medication-induced movement disorders, for example, neuroleptic-induced Parkinsonism, neuroleptic malignant syndrome, neuroleptic-induced acute dystonia, neuroleptic-induced acute akathisia, neuroleptic-induced tardive dyskinesia and medication-induced postural tremour; substance-related disorders arising from the use of alcohol, amphetamines (or amphetamine-like substances) caffeine, cannabis, cocaine, hallucinogens, inhalants and aerosol propellants, nicotine, opioids, phenylglycidine derivatives, sedatives, hypnotics, and anxiolytics, which

substance-related disorders include dependence and abuse, intoxication, withdrawal, intoxication delerium and withdrawal delerium; addictive behaviors such as gambling; epilepsy; Down's syndrome; acute pain, chronic pain and migraine; demyelinating diseases such as multiple sclerosis (MS) and amylolateral sclerosis (ALS), peripheral neuropathy, for example diabetic and chemotherapy-induced-neuropathy, and postherpetic neuralgia, trigeminal neuralgia, segmental or intercostal neuralgia and other neuralgias; and cerebral vascular disorders due to acute or chronic cerebrovascular damage such as cerebral infarction, subarachnoid haemorrhage or cerebral oedema in a mammal, including a human, comprising an amount of a compound according to claim 1 that is effective in treating such condition or disorder and a pharmaceutically acceptable carrier.

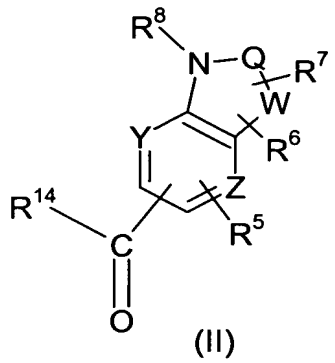
72. **(Withdrawn)** A pharmaceutical composition for treating a disorder or condition selected from the group consisting of respiratory diseases, particularly those associated with excess mucus secretion, such as chronic obstructive airways disease, bronchopneumonia, chronic bronchitis, cystic fibrosis, adult respiratory distress syndrome, and bronchospasm; inflammatory diseases such as inflammatory bowel disease, psoriasis, Reiter's syndrome, Raynaud's syndrome, anthropathies, fibrositis, osteoarthritis, rheumatoid arthritis, psoriatic arthritis, asthma, pruritis and sunburn; human immunodeficiency virus (HIV) infections; allergies such as eczema and rhinitis, and other allergies; hypersensitivity disorders such as poison ivy; ophthalmic diseases such as conjunctivitis, vernal conjunctivitis, and the like; ophthalmic conditions associated with cell proliferation such as proliferative vitreoretinopathy; cutaneous diseases such as contact dermatitis, atopic dermatitis, urticaria, and other eczematoid dermatitis in a mammal, including a human, comprising an amount of a compound according to claim 1 that is effective in treating such condition or disorder and a pharmaceutically acceptable carrier.

73. **(Withdrawn)** A pharmaceutical composition for treating a disorder or condition selected from the group consisting of neoplasms, including breast tumours, gastric carcinomas, gastric lymphomas, neuroganglioblastomas and small cell carcinomas such as small cell lung cancer in a mammal, including a human, comprising an amount of a compound according to claim 1 that is effective in treating such condition or disorder and a pharmaceutically acceptable carrier.

74. **(Withdrawn)** A pharmaceutical composition for treating a disorder or condition selected from the group consisting of gastrointestinal (GI) disorders, including inflammatory gastrointestinal disorders such as inflammation bowel disease, disorders caused by *helicobacter pylori* and diseases of the GI tract such as gastritis, gastroduodenal ulcers, disorders associated with the neuronal control of viscera, ulcerative colitis, Crohn's disease, irritable bowel syndrome and emesis in a mammal, including a human, comprising an amount of a compound according to claim 1 that is effective in treating such condition or disorder and a pharmaceutically acceptable carrier.

75. **(Withdrawn)** A pharmaceutical composition for treating a disorder or condition selected from the group consisting of stress related somatic disorders; reflex sympathetic dystrophy such as shoulder/hand syndrome; adverse immunological reactions such as rejection of transplanted tissues and disorders related to immune enhancement or suppression such as systemic lupus erythematosus; plasma extravasation resulting from cytokine chemotherapy; disorders of bladder function such as cystitis, bladder detrusor hyper-reflexia, inflammation of the urinary tract and incontinence, including urinary urge incontinence, overactive bladder, stress incontinence and mixed incontinence; fibrosing and collagen diseases such as scleroderma and eosinophilic fascioliasis; blood flow disorders caused by vasodilation and vasospastic diseases such as angina and Reynaud's disease; angiogenesis; cardiovascular disorders; eating disorders, such as anorexia nervosa and bulimia nervosa; attention deficit hyperactivity disorder; chronic fatigue syndrome; sexual dysfunctions including premature ejaculation and male erectile dysfunction; premenstrual syndrome and premenstrual dysphoric disorder; fibromyalgia; and rheumatic diseases such as fibrositis in a mammal, including a human, comprising an amount of a compound according to claim 1 that is effective in treating such condition or disorder and a pharmaceutically acceptable carrier.

76. **(Withdrawn)** A compound of the formula



(II)

wherein Q is C=NH, C=CH_2, C=S, C=O, SO or SO_2;

each of Y and Z is N or CH, with the proviso that Y and Z can not both be N;

W is a one carbon linking group (i.e., methylene) or a saturated or unsaturated two or three carbon linking group, wherein each of the foregoing W groups can optionally be substituted with one substituent R^7 or two substituents R^7 and R^6, or W is a one carbon linking group that forms, together with a 2, 3, 4 or 5 carbon chain, a 3, 4, 5 or 6 membered spiro ring, respectively;

or W is a saturated two carbon chain linking group that forms, together with a separate 1, 2 or 3 carbon chain, a fused 3, 4 or 5 membered ring, respectively;

or W is a saturated two carbon chain linking group, wherein one of the two carbons in the chain forms, together with a separate 2, 3, 4 or 5 carbon chain, a 3, 4, 5 or 6 membered spiro ring, respectively;

R^5 and R^8 are selected, independently, from hydrogen, -SO(C_1–C_6)alkyl, -SO_2-(C_1-C_6)alkyl, -SO-aryl, -SO_2–aryl, CF_3, halo, phenyl, phenyl-(C_1-C_2)alkyl, hydroxy, aryloxy, heteroaryloxy, pyridyl, tetrazolyl, oxazolyl, thiazolyl, (C_1-C_6)alkoxy optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, (C_1-C_6)alkyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, and (C_1-C_6)alkyl substituted with one or more substituents, preferably with from zero to two substituents selected, independently, from hydroxy, oxo, (C_1-C_6)alkoxy, phenyl-(C_1-C_3)alkoxy, phenyl, cyano, chloro, bromo, iodo, NR^9R^{10}, NR^9COR^{10}, $NR^9CO_2R^{10}$, $CONR^9R^{10}$, COR^9 and CO_2R^9;

R^6 and R^7 are selected, independently, from -SO(C_1–C_6)alkyl, -SO_2-(C_1–C_6)alkyl, -SO-aryl, -SO_2–aryl, CF_3, halo, phenyl, phenyl-(C_1-C_2)alkyl, hydroxy, aryloxy, heteroaryloxy, pyridyl, tetrazolyl, oxazolyl, thiazolyl, (C_1-C_6)alkoxy optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, (C_1-C_6)alkyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine

atoms, and (C_1-C_6)alkyl substituted with one or more substituents, preferably with from zero to two substituents selected, independently, from hydroxy, oxo, (C_1-C_6)alkoxy, phenyl-(C_1-C_3)alkoxy, phenyl, cyano, chloro, bromo, iodo, NR^9R^{10}, NR^9COR^{10}, $NR^9CO_2R^{10}$, $CONR^9R^{10}$, COR^9 and CO_2R^9;

each R^9 and each R^{10} is selected, independently, from hydrogen, (C_1-C_6)alkyl, hydroxy(C_1-C_6)alkyl, phenyl and CF_3;

and wherein the phenyl groups in the definition of R^5, R^6, R^7 and R^8 and the phenyl moiety of phenyl (C_1-C_2)alkyl in the definition of R^5, R^6, R^7 and R^8 can optionally be substituted with one or more substituents, preferably with from zero to two substituents, that are selected, independently, from halo, hydroxy, (C_1-C_6)alkoxy optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, and (C_1-C_6)alkyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms; and

R^{14} is hydrogen, (C_1-C_6)alkyl or CF_3;

with the proviso that: (a) R^8 can not be halo, hydroxy, cyano, aryloxy, heteroaryloxy, substituted or unsubstituted (C_1-C_6)alkoxy or methyl substituted with from 1-3 fluorine atoms;

or a pharmaceutically acceptable salt thereof.

77. **(Withdrawn)** A compound according to claim 76, selected from the group consisting of:

5-Dimethoxymethyl-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;

(1S,1aR)-5-Dimethoxymethyl-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;

(1R,1aS)-5-Dimethoxymethyl-6-methoxy-3-methyl-1,1a,3,7b-tetrahydro-3-aza-cyclopropa[a]naphthalen-2-one;

6-Methoxy-3-methyl-2-oxo-1a,2,3,7b-tetrahydro-1H-3-aza-cyclopropa[a]naphthalene-5-carbaldehyde;

(1S,1aR)-6-Methoxy-3-methyl-2-oxo-1a,2,3,7b-tetrahydro-1H-3-aza-cyclopropa[a]naphthalene-5-carbaldehyde;

(1R,1aS)-6-Methoxy-3-methyl-2-oxo-1a,2,3,7b-tetrahydro-1H-3-aza-cyclopropa[a]naphthalene-5-carbaldehyde;

5-Methoxy-1,3,3-trimethyl-2-oxo-2,3-dihydro-1H-pyrrolo[3,2-b]pyridine-6-carbaldehyde;

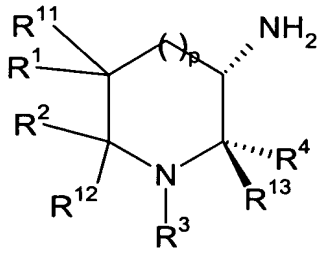
6-Methoxy-1,3,3-trimethyl-2-oxo-2,3-dihydro-1H-pyrrolo[2,3-b]pyridine-5-carbaldehyde;

3-Methoxy-8-methyl-7-oxo-5,6,7,8-tetrahydro-[1,8]naphthyridine-2-carbaldehyde;

2-Methoxy-5-methyl-6-oxo-5,6,7,8-tetrahydro-[1,5]naphthyridine-3-carbaldehyde;

and pharmaceutically acceptable salts thereof.

78. **(Withdrawn)** A compound of the formula T-NH_2 wherein T-NH_2 is



and wherein p is zero, one or two;

R^3 is selected from hydrogen, COR^9, CO_2R^9, optionally substituted phenyl, optionally substituted heterocyclic rings, and optionally substituted (C_1-C_8)alkyl wherein one of the CH_2 groups of said (C_1–C_8) alkyl may optionally be replaced with a sulfur, oxygen or carbonyl group and wherein said (C_1-C_8)alkyl can optionally be substituted with from one to three substituents, preferably with zero substituents or one substituent, independently selected from hydroxy, oxo, phenyl-(C_1-C_3)alkoxy, phenyl, cyano, halo, optionally substituted heterocyclic rings, NR^9COR^{10}, $NR^9CO_2R^{10}$, $CONR^9R^{10}$, COR^9, CO_2R^9, NR^9R^{10}, and (C_1-C_6)alkoxy optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms;

and wherein the heterocyclic rings of R^3 and the heterocyclic ring substituents on the alkyl groups of R^3 are selected, independently, from 3 to 7 membered saturated or unsaturated monocyclic rings containing from 1 to 4 ring heteroatoms, and 8 to 12 membered saturated or unsaturated bicyclic rings containing from 1 to 4 ring heteroatoms, wherein said heteroatoms are selected, independently, from oxygen, nitrogen and sulfur, with the proviso that there can not be two adjacent ring oxygen atoms or two adjacent ring sulfur atoms in either the monocyclic or bicyclic heterocyclic rings, and with the proviso that heterocyclic rings formed from NR^9R^{10} or $CONR^9R^{10}$ must contain at least one nitrogen atom;

and wherein the heterocyclic rings of R^3 and the heterocyclic ring substituents on the alkyl groups of R^3 can optionally be substituted with one or more substituents, preferably with zero, one or two substituents, independently selected from oxo, hydroxy, thioxo, halo, cyano, phenyl, $(CH_2)_mNR^9R^{10}$, NR^9COR^{10}, $(CH_2)_mOR^9$, wherein m is zero, one or two, and (C_1-C_6)alkyl optionally substituted with one or more substituents, preferably with from zero to two substituents, independently selected from halo, CF_3, methoxy and phenyl;

and wherein the phenyl groups of R^3 and the phenyl substituents in the alkyl groups of R^3 can optionally be substituted with one or more substitutents, preferably with from zero to two substituents, independently selected from the group consisting of halo, cyano, nitro, CF_3, $(CH_2)_mNR^9R^{10}$, wherein m is zero, one or two, NR^9COR^{10}, $NR^9CO_2R^{10}$, $CONR^9R^{10}$, $CO_2NR^9R^{10}$, COR^9, CO_2R^9, $(C_1\text{-}C_6)$alkyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, $(C_1\text{-}C_6)$alkoxy optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, and $(C_2\text{-}C_6)$alkenyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms;

each of R^1, R^2, R^{11}, R^{12} and R^{13} are selected, independently, from hydrogen and $(C_1\text{-}C_6)$alkyl optionally substituted with one or more substituents, preferably with zero, one or two substituents, that are selected, independently, from hydroxy, oxo, $(C_1\text{-}C_6)$alkoxy and cyano;

or R^1 and R^2, together with the carbon atoms to which they are attached, or R^2 and R^3, together with the carbon and nitrogen to which they are attached, respectively, form a 5 or 6 membered saturated heterocyclic ring containing one or two heteroatoms that are selected, independently, from nitrogen, oxygen and sulfur, with the proviso that said ring can not contain two adjacent oxygen atoms or two adjacent sulfur atoms; or R^1 and R^2, together with the carbons to which they are attached, form a 5 or 6 membered, saturated or unsaturated carbocyclic ring, and wherein said heterocyclic and carbocyclic rings formed by R^1 and R^2 or by R^2 and R^3 can be substituted with one or more substituents, preferably with zero substituents or one substituent, independently selected from halo, oxo, NR^9R^{10}, $(C_1\text{-}C_6)$alkyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, and $(C_1\text{-}C_6)$alkoxy optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms;

or R^{12} and R^{13}, together with the carbon atoms to which they are attached, form a 5 or 6 membered saturated heterocyclic ring containing one or two heteroatoms that are selected, independently, from nitrogen, oxygen and sulfur, with the proviso that said ring can not contain two adjacent oxygen atoms or two adjacent sulfur atoms, or R^{12} and R^{13}, together with the carbons to which they are attached, form a 5 or 6 membered, saturated or unsaturated carbocyclic ring, and wherein said heterocyclic and carbocyclic rings formed by R^{12} and R^{13} can be substituted with one or more substituents, preferably with zero substituents or one substituent, independently selected from NR^9R^{10}, halo, phenyl-S-, phenyl-SO-, phenyl-SO_2-,oxo, $(C_1\text{-}C_6)$alkoxy optionally substituted with from one to seven fluorine atoms, preferably

with from zero to three fluorine atoms, and (C_1-C_6)alkyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms:

with the proviso that no more than one of R^1 and R^2, R^2 and R^3, and R^{12} and R^{13} can form a ring;

R^4 is selected from phenyl, 2-, 3- or 4-pyridyl, 2- or 3-thienyl, and pyrimidyl, wherein R^4 can be optionally substituted with one or more substituents, preferably with zero or one substituent, selected, independently, from halo, (C_1-C_6)alkyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, (C_1-C_6)alkoxy optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms, and (C_2-C_6) alkenyl optionally substituted with from one to seven fluorine atoms, preferably with from zero to three fluorine atoms;

each R^9 and each R^{10} is selected, independently, from hydrogen, (C_1-C_6)alkyl, hydroxy(C_1-C_6)alkyl, phenyl and CF_3;

or R^9 and R^{10}, when R^3 is NR^9R^{10} or $CONR^9R^{10}$, can form, together with the nitrogen to which they are attached, an optionally substituted heterocyclic ring that contains at least one nitrogen atom;

or a pharmaceutically acceptable salt thereof.

79. **(Withdrawn)** A compound according to claim 78, selected from the group consisting of:

6-Methyl-2-phenyl-piperidin-3-ylamine;

(2S,3S, 6S)-6-Methyl-2-phenyl-piperidin-3-ylamine;

(2R,3R, 6R)-6-Methyl-2-phenyl-piperidin-3-ylamine;

6-Ethyl-2-phenyl-piperidin-3-ylamine;

(2S,3S,6S)-6-Ethyl-2-phenyl-piperidin-3-ylamine;

(2R,3R,6R)-6-Ethyl-2-phenyl-piperidin-3-ylamine;

5-Methyl-2-phenyl-piperidin-3-ylamine;

5-Ethyl-2-phenyl-piperidin-3-ylamine;

5-propyl-2-phenyl-piperidin-3-ylamine;

5,5-diethyl-2-phenyl-piperidin-3-ylamine;

5,5-dimethyl-2-phenyl-piperidin-3-ylamine;

6,6-dimethyl-2-phenyl-piperidin-3-ylamine;

8-Benzyl-1-phenyl-8-aza-bicyclo[3.2.1]oct-2-ylamine;

(1S,2S,5R) or (1R,2R,5S) 1-Phenyl-8-aza-bicyclo[3.2.1]oct-2-ylamine;

and pharmaceutically acceptable salts thereof.

REMARKS

Status of Claims

Claims 1-79 are pending; claims 64-79 are withdrawn from consideration pursuant to a restriction requirement. Claims 5, 19, 21, 23, 28, 52, 53 and 60-63 and been cancelled.

Claims 1, 58 and 59 are rejected and pending in this application.

Status of Amendments

Applicants filed amended claims 1, 58 and 59 on February 5, 2004 under 37 C.F.R. 1.116 in reply to a final rejection. In an Advisory Action mailed on March 3, 2004, the proposed amendment was not entered as the examiner indicated that amended claim 1 introduces new matter.

Even if entered, Claim 1 is rejected as obvious in light of *Wakabayashi, et al.* WO 97/03066.

Argument

I. Introduction of New Matter in Amended Claim 1

In its original form, claim 1 recites *inter alia:*

"B is absent of is methylene or ethylene;

G is $NH(CH_2)_q$, $S(CH_2)_q$ or $O(CH_2)_q$, wherein q is zero or one;

With the proviso that when q is zero, G is NH_2, SH or OH;

In its original form, claim 1 contains a substantive error that renders the invention partially inoperative.

As an example of an inoperative species, where B is absent and G is NH_2, SH or OH, compound I exists necessarily as two separate, unbonded, independent compounds. In their correct form, the compounds of formula I, as clearly shown in the structural formula I, are single,unitary molecules, therefore, claim 1 is partially inoperative.

Amended claim 1 effectively corrects this error by requiring G to be –NH-, -S- or –O- when q is zero.

Applicant respectfully submits that the amended claim 1 wherein formula I is always a single compound reflects the true nature of the invention and the intention of the claimed invention.

The amended claim 1 does not introduce new matter; rather it provides a correction to an error that occurred in good faith and without deceptive intention. A change in wording is

not new matter when it provides a correction to an error that one skilled in the art would readily recognize. (*Ex parte Brodbeck*, 199 U.S.P.Q. 230, 231.)

Support for amended claim 1, is found in Compound I (d), Scheme K, page 62; Compound I (e), Scheme H, page 55 and Compound I (m), Scheme W, page 88.

II. The Section 103 Rejection of Claims 1, 58 and 59.

Amended claim 1 requires that either Y or Z be nitrogen. Thus the ring containing Y and Z can never be **a benzo** group and so a **benzo**lactam moiety can never be present.

In contrast *Wakabayashi, et al.*, discloses a corresponding chemical moiety which is always a benzo group and the claimed invention is always a benzolactam. The compounds of formula I are not suggested or taught in the prior art.

Support for this amendment can be found on page 9, lines 24,25 and lines 36,37 of the specification.

Applicant respectfully submits that claim 1 is nonobvious under section 103(a) and withdrawal of the instant rejection is requested.

Respectfully submitted,

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